UNIT 1 BENCHMARK Re-Test

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| **UNIT ASSESSMENT ALIGNMENT GUIDE** | | | | | |
| **Learning Goal #** | **Learning Goal** | **Aligned Item #’s** | **Points Correct** | **Points Possible** | **Grade**  (%) |
| **CFU 2.1** | **Recognize and use like terms to simplify expressions.** | **1, 4, 7** |  | **3** |  |
| **SPI 1.3** | **Apply properties to evaluate expressions, simplify expressions, and justify solutions to problems.** | **2, 8, 11, 14, 18, 21, 24** |  | **7** |  |
| **CFU 1.9** | **Identify and use properties of the real numbers (including commutative, associative, distributive, inverse, identity element, closure, reflexive, symmetric, transitive, operation properties of equality).** | **5, 9, 17, 22** |  | **4** |  |
| **CFU 2.8** | **Use multiple strategies to approximate the value of an irrational number including irrational square roots and including location on the real number line.** | **3, 10, 15, 16** |  | **4** |  |
| **SPI 2.3** | **Describe and/or order a given set of real numbers including both rational and irrational numbers.** | **6, 12, 20, 23** |  | **4** |  |
| **CFU 3.3** | **Justify correct results of algebraic procedures using extension of properties of real numbers to algebraic expressions** | **13, 19, 25** |  | **3** |  |
| ***TOTAL:*** | | |  | **25** |  |

1) Which of the following terms are like terms:

vw, -vw2, -v2w, -3vw2, 2v2w

A) -vw2, 2v2w

B) -v2w, -3vw2

C) -3vw2, -vw2

D) vw, -vw2

2) *Simplify:* 6(4x – 7)

A) 10x – 1

B) 24x – 7

C) 24x – 42

D) 24x + 42

3) Which point best represents - ?

A B C D

-5 -4 -3 -2 -1 0

A) point *A*

B) point *B*

C) point *C*

D) point *D*

4) *Simplify:* 14mn + 6mn2 – 8mn – 7m2n + 5m2n

A) 10m2n2

B) 6mn – 4m2n

C) 6mn + 5m2n – mn2

D) 6mn – 2m2n + 6mn2

5) The following is an example of which property?

(8 + 2) + 7 = 8 + (2 + 7)

A) Associative

B) Identity

C) Commutative

D) Distributive

6) Which is a rational number?

A)

B) -4⅔

C) 9/3

D) all of these

7) *Simplify:* 7xy – xy + 3xy

A) 9xy

B) 10xy

C) 6xy

D) 2xy

8) *Simplify:*  -2(-5x – 8)

A) -7x – 10

B) 10x – 8

C) 10x – 16

D) 10x + 16

9) The following is an example of which property?

p × 3 = 3 × p

A) Associative

B) Identity

C) Commutative

D) Distributive

10) Which is true?

A) 0.5 > 1

B) 3/4 = 0.75

C) <

D) -⅓ > 1.25

11) *Simplify:*  (6y – 3)5

A) 30y + 15

B) 30y – 15

C) 5y – 3

D) 30y – 3

12) Which shows the numbers ordered from least to greatest?

A) , 2.75, , 11/4

B) , 11/4, 2.75,

C) 11/4 , , 2.75

D) , 2.75, 11/4,

13) What is the value of the expression when x = 5 and y = -2

A) 124

B) -124

C) -126

D) 126

14) *Simplify:* 3(2n – 7) + 7(4 – 2n)

A) -11m + 7

B) -8n + 21

C) 4n + 7

D) -8n + 7

15) Which of the following best describes the location of -on the number line?

A B C D

-5 -4 -3 -2 -1 0

A) between point *A* and point *B*

B) between point *B* and point *C*

C) between point *C* and point *D*

D) to the right of point *D*

16) Which number below is the least?

A) -

B) -0.6

C) -

D)

17) Which property of real numbers justifies the following statement?

*p×1 is equivalent to p*

A) The associative property of addition

B) Multiplicative identity property

C) The commutative property of multiplication

D) The distributive property of multiplication

18) *Simplify:* 25pq + 13pq – 6 – 35pq + 4

A) 38pq – 6

B) 3pq – 2

C) -10pq + 4

D) 63pq – 10

19) What is the value of the expression when a = -2 and c = -3

2(m + 1) – n3

A) 2

B) -31

C) -29

D) -21

20) Which shows the numbers ordered from greatest to least?

A) 31/5, , , 53/5

B) 53/5, , , 31/5

C , 53/5, , 31/5

D) , 31/5, 53/5,

21) *Simplify:* 9 – 5(5x – 2y) + 3y

A) -25x + 10y + 9

B) -25x – 6y + 4

C) -25x + 13y + 9

D) -25x + 13y + 4

22) The profit Sam’s company makes is given by the expression

0.1(1000 + 300m) where m is the total number of sales. Which property

shows the profit when Sam’s company sells 50 pieces of merchandise?

A) Associative Property

B) Commutative Property

C) Distributive Property

D) Subtraction Property of Equality

23) Which is correctly ordered from least to greatest?

A) 0.2, 0.25, 0.02, 0.12

B) 0.25, 0.2, 0.12, 0.02

C) 0.02, 0.12, 0.2, 0.25

D) 0.12, 0.02, 0.25, 0.2

24) *Simplify: x + –*

A)

B)

C) -

D)

25) What is the value of the expression when v = 6 and w = 3?

A) 34

B) 14

C) 4

D) 24

26-30) Write an essay explaining why the associative property only has addition and multiplication and not subtraction or division. Show examples in your writing.

Essay: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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31-35) Suppose you are mixing red and blue paint in a bucket. Do you think the first color of the mixed paint will be the same whether you add the blue paint or the red paint to the bucket first? Relate your answer to a property of real numbers. Show examples of that property in your writing.

Essay: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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My New Problem:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_